

PRACTICE OF TIVA vs VOLATILE GAS ANAESTHESIA AT NATIONAL SCIENTIFIC AND PRACTICAL CENTRE OF EMERGENCY MEDICINE (NSPCEM)

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Introduction: Comparative assessment of economic impact and patients' outcome between Inhalation vs. Total Intravenous Anesthesia (TIVA) techniques is well debated in literature. In the Republic of Moldova, due to economic issues, the anesthesiologists haven't used for more than 15 years Inhalational Anesthesia (IA) techniques. One year ago the IA technique of anesthesia was revived at NSPCEM. Due to this fact it was very important to find out if IA had any impact on the quality of health services rendered at NSPCEM.

Materials and Methods: It is a prospective observational study, approved by the Science Ethics Committee of Moldova State University of Medicine and Pharmacy "Nicolae Testemițanu". Written informed consent, to participate in the study, was obtained from 41 patients. Patients were randomized in two groups according to the technique of anesthesia TIVA and IA. All patients underwent laparoscopic cholecystectomy. During the study, the research team collected quantitative and qualitative data regarding used techniques of anesthesia and patient safety issues. The statistical analysis was performed using SPSS 17 software.

Results: The study lots are similar from the demographic point of view. According to results of our study there are no differences between the study groups in the terms of: length of anesthesia ($p=0.253504$), use of intravenous anesthetics drugs thiopental ($p=0.519761$), midazolame ($p=0.349021$); neuro-muscular blocking agent ($p=0.995902$); incidence of postoperative nausea ($p=0.4$) and vomiting ($p=1.0$); length of post-anesthesia recovery ($p=0.995902$). But the cost of IA is about two folds higher ($p=0.000003$) and IA technique implies the reduction of total amount of used opioids ($p=0.011007$).

Limitations of the study: small sample size; no standardize study anesthesia protocol; observational study; anesthesiologists involved in study didn't attend any special training on providing volatile gas anesthesia, laparoscopic cholecystectomy is a relative short surgery, it is necessary a longer procedure in order to reveal benefits of one or another technique.

Conclusion: Partially, our result can be explained by a shortage of the anesthesiologists' experience in managing of the IA technique, this leads to waste of resources. Due to this we encourage to use IA for specific high ASA score patients and to create training opportunities for anesthesiologists in the field of VGA.

Key words: technique of anesthesia, TIVA, Inhalational Anaesthesia, assessment.

PREDICT POSTOPERATIVE BLEEDING AFTER CARDIOPULMONARY BYPASS IN CHILDREN

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Background: Systemic coagulation disorders after cardiac surgery requiring cardiopulmonary bypass (CPB) represent serious postoperative complications. The aim of the present study was to investigate the

relationship between postoperative hemorrhage and coagulation parameters determined by global coagulation assays, to define predictive markers.

Methods: Thirty-four pediatrics were enrolled for the admitted patients to the University Children's Hospital from Brussels for cardiac surgery with CPB. Blood samples were collected ten minutes after protamine administration. Laboratory investigations included platelet count, fibrinogen level and classical coagulation tests (prothrombin time (PT) with International Normalized Ratio (INR), activated partial thromboplastin time (aPTT)). The duration of cardiopulmonary bypass and the minimal temperature were recorded. Chest tube drainage was monitored for 24 h after operations as an index of postoperative hemorrhage (> 10 ml/kg).

Results: Demographic data differed between the hemorrhagic and non hemorrhagic group. In this study the incidence of bleeding was 64.7%, and it was higher in younger children with lower body weight. No baseline coagulation test was found by correlation coefficient to be predictive or, to correlate with postoperative chest tube drainage (PT (INR), $p=0.48$; aPTT, $p=1.00$). After the protamine administration to patients, platelet count ($p=1.00$) and fibrinogen level ($p=0.278$) did not correlate with eventual chest tube drainage. Our investigation determined the duration of CPB (r (Pearson) = 0.53; $p=0.0008$) and the minimal temperature while CPB (r (Spearman) = -0.39; $p=0.002$) to be predictive for 24-hour chest tube drainage after CPB in children.

Conclusions: By using regression analysis, we found duration and minimal temperature of CPB to be predictors of post-CPB chest tube drainage in children. No baseline coagulation test was found to be predictive with postoperative bleeding. Postprotamine platelet count and fibrinogen level were observed to not correlate with chest tube drainage.

Keywords: bleeding, children, cardiac surgery.

SURGICAL METHODS IN THE TREATMENT OF BLEPHAROPTOSIS

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Introduction: Blepharoptosis is a drooping of the upper eyelid causing a narrowing of the palpebral aperture, may be divided in two main types: congenital and acquired. An actual problem, that may affect the patients in all periods of ages. The most problematic are the ptosis of the children, which may develop amblyopia or astigmatism, when ptosis isn't treated surgically in time. At the moment there are more that 150 surgical methods of plastic surgery of the upper eyelid in congenital and acquired ptosis. The correct choice of a method depends on basic criteria: the cause of ptosis, patient's age, ptosis' degree, the function of levator muscle, specific parameters (like MRD) and influence on the efficiency of the intervention result of, aesthetic effect, minimal postsurgical complications and gut therapeutic effect (in amblyopia cases by children). Presently, there are not any schemes of efficient approach to the patient with blepharoptosis, which help to choose a correct surgical method with a good cosmetic, functional effect.

Objectives: To elaborate the schemes of surgical treatment for each cause group of blepharoptosis. To introduce a new surgical method in Moldova of Kataew (appeared in 2008, Nr.of patent №2008143463) in congenital blepharoptosis with very low function of levator muscle in children. To appreciate the results of surgical treatment according to the proposed scheme.